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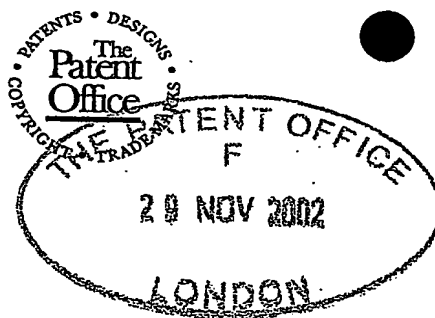
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1/77

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1. Your reference

6.70.1043 UK

02DEC02 E767560-12 000073
P01/7700 0.00-0227937.0

2. Patent application number

(The Patent Office will fill in this part)

29 NOV 2002

0227937.0

3. Full name, address and postcode of the or of each applicant (underline all surnames)

08518714001

Patents ADP number (if you know it)

INTERBREW S.A.
VARSTRAAT 94
B-3000 LEUVEN
BELGIUM

If the applicant is a corporate body, give the country/state of its incorporation

A BELGIAN CORPORATION

4. Title of the invention

ALCOHOL BEVERAGE BAG CONSTRUCTION

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

G.F. REDFERN & CO.
LYNN HOUSE
IVY ARCH ROAD
WORTHING
WEST SUSSEX. BN14 8BX

Patents ADP number (if you know it)

1412002

08435356001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(if you know it)

Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

YES

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
 - c) any named applicant is a corporate body.
- See note (d))

Patents Form 1/77

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Continuation sheets of this form

Description

7

Claim(s)

2

Abstract

1

Drawing(s)

2 x 2

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Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

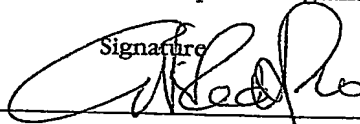
Request for substantive examination (Patents Form 10/77)

Any other documents
(please specify)

11.

I/We request the grant of a patent on the basis of this application.

Signature



Date

29 November 2002

12. Name and daytime telephone number of person to contact in the United Kingdom

Mrs. S.M. Camp
01903 820466

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- 1 -

ALCOHOL BEVERAGE BAG CONSTRUCTION

Field of the Invention

The present invention relates to the construction of an alcohol beverage containing bag.

Background of the Invention

It is known to construct an alcohol bag in a manner that when the bag is filled with an alcohol beverage, such as, for example, beer or wine, the bag resembles the shape of the container in which the bag is housed.

In applications where the bag is used to contain beer, the bags are typically housed in a keg having a generally cylindrical shape. The bag has a neck portion secured to the keg. The bag is deflated, past through a keg aperture and then filled with beer. After the beer is dispensed from the keg, the bag is removed through the aperture. Typically, the bag comprises two circular panels spaced apart by a cylinder sheet. The sheet is welded at its ends to the circular panels to form two end seams. The sheet is also welded along its length to form a third seam. A fourth seam is made where the neck passes through one of the circular panels. During bag removal from the keg, the end seams have a tendency to bunch

together and are pulled together through the keg aperture. As a consequence, stress is placed on the end seam which reduces the recycling life span of the bag. Accordingly, any improvement in bag construction that extends the recycling life of the bag is beneficial.

Summary of the Invention

It is an object of the present invention to provide a bag suitable for containing an alcohol beverage in a container that places less stress on the bag seams during bag removal from the container.

It is another object of the present invention to provide a bag suitable for use in a beer keg that has fewer seams than a cylindrical formed bag.

The present invention relates to a bag suitable for containing an alcohol beverage, preferably beer, in a container, preferably a keg. The bag comprises a first panel and a second panel having peripheral edges welded together to form a first seam. Each of the first and second panels has an area larger than a cross-sectional area for the keg. This sizing of the panels relative to the keg cross-sectional area permits the panels to be forced apart during bag filling so as to expand the bag internal space to approximate the volume of the keg. The bag has an open neck member passing through an aperture of the first panel and welded thereto to form a second seam. The bag of the present invention has advantage because it has fewer seams to be stressed during bag insertion and removal into the container than a cylindrical formed bag. The fewer seams also results in a manufacturing labour cost reduction.

The aperture in the first panel of the bag is preferably offset from the center of the panel. This off center aperture orientation reduces the likelihood of the first seam of the bag being bunched up and pulled at one

time through the keg aperture during bag extraction. Consequently, less stress is placed on the first seam during bag extraction from the keg thereby enhancing the recycling life of the bag.

In accordance with the present invention there is provided a bag suitable for containing an alcohol beverage when placed in a container having a cross-sectional area and a volume. The bag comprises a first panel and a second panel having peripheral edges welded together to form a first seam. Each of the first and second panels have an area larger than the cross-sectional area of the container. The first panel has an aperture contained therein. The first and second panels are moveable apart from each other when the bag is filled to expand bag internal space to approximate the volume of the container. The bag has an open neck member passing through the aperture of the first panel and welded thereto to form a second seam. The neck has a passageway for filling the bag with the alcohol beverage.

In accordance with another aspect of the present invention, the bag may comprise a cylindrical shaped bag having a neck and four seams. The improvement resides in the neck of the bag passing through a circular bag panel off-set from the center of the circular panel. As a result, when the bag is removed from a keg, the off-set neck pulls the bag from the keg in such a manner that the bag seams are not bunched together and removed at once. Consequently, less stress is placed on these seams.

In accordance with this other aspect of the present invention, there is provided a bag suitable for containing an alcohol beverage when placed in a keg. The bag comprises two circular panels having peripheral edges welded to a cylindrical panel to form the bag with three seams. The bag is expandable to approximate the volume of the keg. The first panel has a

center and an aperture therein positioned off-center from the center. The bag has an open neck member passing through the aperture of the first panel and welded thereto to form a fourth seam. The neck provides a passageway for filling the bag.

Brief Description of The Drawings

For a better understanding of the nature and objects of the present invention reference may be had to the accompanying diagrammatic drawings in which:

Figure 1 is perspective view of the bag of the present invention shown in a flattened condition;

Figure 2 is a perspective view of the bag of the present invention shown inserted and deflated in a keg; and,

Figure 3 is a view of a cylindrical shaped bag suitable for insertion into a keg.

Detailed Description Of The Invention

Referring to Figure 1 there is shown a bag 10 having a preferred construction for use in a container 12. The bag 10 is suitable for use for housing an alcohol beverage and in the preferred embodiment for housing beer. The bag 10 is pliable and preferably comprises two layers of plastic material 14 and 16 which are welded together along their peripheral edges 20 and 22 respectively to perform a peripheral edge seam 18. The panels 14 and 16 are generally rectangular in shape and in the preferred embodiment are square. It should be understood that each panel may comprise one or more layers of plastic material joined along the peripheral edges and that these layers are not necessarily laminated together.

The first panel 14 has an aperture 24 positioned in the first panel

offset from its center at 26. A neck 30 extends through the first panel 14 at aperture 24 and is secured to the aperture 24 by a weld 32. The neck 30 typically comprises a rubber like material and has an opening or passageway 34 through which alcohol or beer is filled into the space or volume between the panels 14 and 16.

The bag 10 is shown in Figure 1 to be considerably oversized relative to the size of the keg 12. The keg 12 will have a top and bottom circular walls 40 and 42 with a cylindrical side wall 44. The bag 10 has a cross sectional area that is considerably larger than the cross sectional area of the keg 12. That is the periphery of panels 14 and 16 will have an area which is considerably larger than the area of the top or bottom and wall portions 40 and 42 of the keg 12.

Referring to Figure 2, there is shown a view of the keg 12 having the bag 10 inserted into the keg 12 through an upper aperture 46 in the top end wall portion 40 of the keg 12. The bag 10 is adapted to have its neck 30 to be secured with aperture 40 and the panels 14 and 16 are pulled through the aperture 40 into the internal volume of the cylinder or keg 12. The panels 14 and 16 are shown with the seam 18 following a generally serpentine type shape. It should be understood that in Figure 2, the bag 10 is not inflated or filled with any alcohol. The shape shown is simply illustrative to show that the bag may be stretched to have several folds as it extends into the interior of the keg 12. When alcohol or beer is inserted through neck 30 into the bag 10, the bag expands such that portions of panels 14 and 16 come into contact with cylindrical walls 44 and the end walls 40 and 42 of the keg 12.

Advantage is found with the bag 10 shown in Figures 1 and 2 in that the bag only has two seams 18 and 32. This reduction in the number

of seams compared to a bag comprising a cylindrically shaped bag results in a bag having less opportunity for wear along the seams during insertion and extraction of the bag 10 from the keg 12. By reducing the stress placed on the seams 18 of the bag 10, the bag may be recycled more times and its life expectancy increased or enhanced.

Referring to Figure 3 there is shown a cylindrical bag 80 which may be used with the cylinder 12 shown in Figure 1. The cylindrical bag 80 has a top panel 60, a bottom panel 62 and a side panel 63. The side panel 63 is wrapped in a cylindrical fashion and is joined along seam 64. The top panel 60 is joined to the side panel 63 by seam 66 and the bottom panel 62 is joined to the side panel 63 by seam 68. These seams are formed by welding. A neck portion 70 which is rubber-like in material will also extend through the upper end portion or wall panel 60 of the cylinder of the bag 80 and is secured to the upper panel 60 by a separate weld 72. While this bag is provided with three seams on the bag plus an additional seam for the neck, the stresses placed on the seams by the bag 80 will be considerably less due to the fact that the neck 70 is positioned off center from the center 74 of the top portion or panel 60 of the bag 80. As the neck 70 is pulled and removed from the aperture of the keg 12, the deflated bag 80 is pulled in a manner that the seams are not bunched together and pulled through the aperture 46 in the keg all at once. If the neck 70 is located at center point 74, then as the bag is pulled from the keg, the panel 60 is pulled from its center downwardly resulting in a good portion or all of seam 66 being pulled through the keg 46 at the same time. Also, a good portion or all of seam 62 would also be pulled through the aperture 46 in the keg 12 at the same time. By off setting the neck 70 from the center 74 of the panel, the seams 62 and 66 are not drawn at the

same time through the center aperture 46 in the keg thereby reducing the stresses placed on these seams.

While the bag structure of Figure 3 with the multiple seams is less preferred to the bag shown in Figure 1 with the two seams, it should be understood that there may be a preference to bag manufacturers to use a cylindrical shaped bag for insertion into a cylindrical shaped keg. By manufacturing bag 80 with the off set neck 70, less stress is placed on the end seams of the bag. With less stress placed on the seams of the bag, the recycling life span of the bag is enhanced.

The offset neck feature and associated advantages discussed with respect to the cylindrical bag 80 of Figure 3 is equally applicable to the square bag of Figure 1. In the rectangular bag 10 of Figure 1, the neck 30 is offset from center 26 of panel 14 and is preferably located in a corner of the panel 14.

WHAT IS CLAIMED IS:

1. A bag suitable for containing an alcohol beverage when placed in a container having a cross-sectional area and a volume, the bag comprising:

a first panel and a second panel having peripheral edges welded together to form a first seam, each of the first and second panels having an area larger than the cross-sectional area of the container, the first panel having an aperture contained therein, and the first and second panels being moveable apart from each other when the bag is filled to expand bag internal space to approximate the volume of the container; and,

an open neck member passing through the aperture of the first panel and welded thereto to form a second seam, and the neck having a passageway for filling the bag with the alcohol beverage.

2. The bag of claim 1 wherein the container is a generally cylindrical shaped keg and the first and second panels comprise generally rectangular shapes.

3. The bag of claim 1 wherein the aperture of the first panel is offset from the center of the first panel.

4. The bag of claim 2 wherein the aperture of the first panel is offset from the center of the first panel whereby the first seam of the bag is not removed from the keg all at once.

5. The bag of claim 4 wherein the aperture of the first panel is located proximate a corner of the first panel.

6. The bag of claim 5 wherein the keg has a keg aperture and an end wall to which the open neck is secured and the keg aperture is located centrally of the keg end wall.

7. The bag of claim 1 having a volume when filled that brings

portions of the bag into contact with interior walls of the container.

8. The bag of claim 1 having a potential volume when filled greater than that of the container and having a bag filled volume restricted by the volume of the container.

9. A bag suitable for containing an alcohol beverage when placed in a keg, the bag comprising:

two circular panels having peripheral edges welded to a cylindrical panel to form the bag with three seams, the bag being expandable to approximate the volume of the keg, and the first panel having a center and an aperture therein positioned off-center from the center; and,

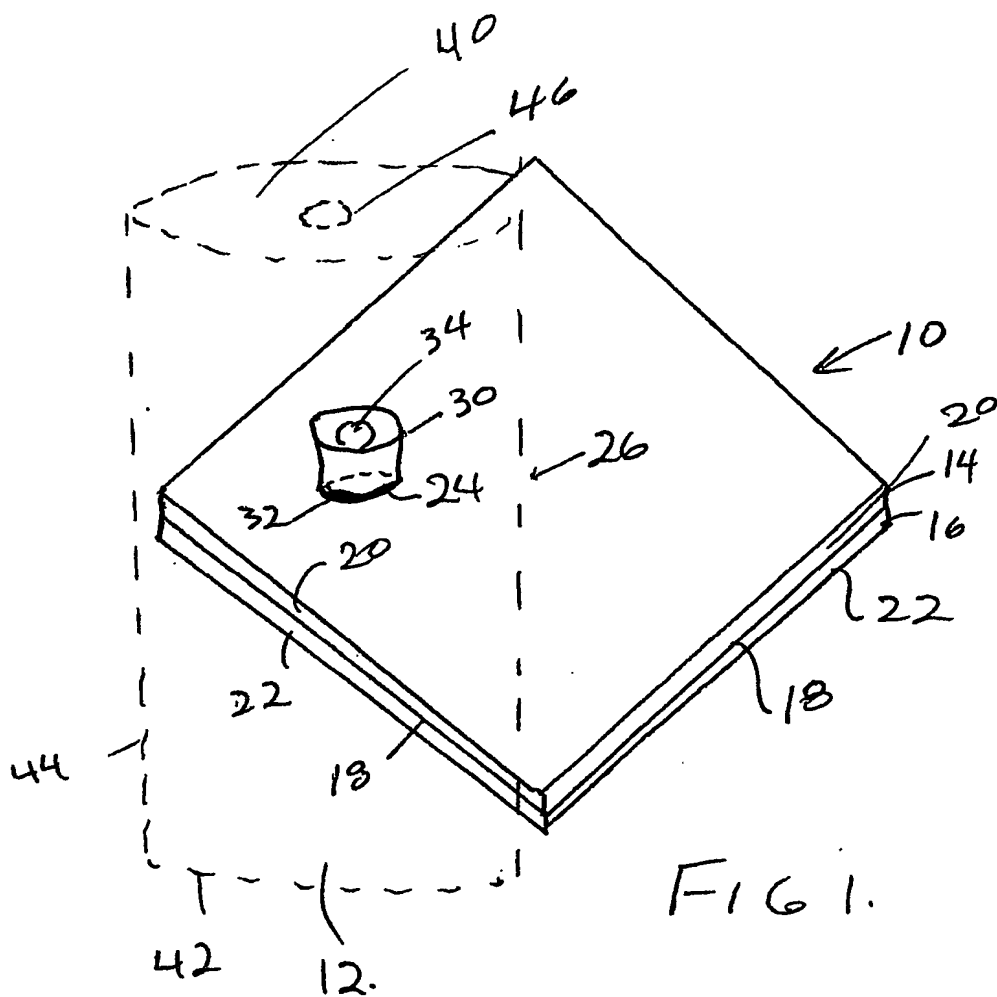
an open neck member passing through the aperture of the first panel and welded thereto to form a fourth seam and the neck providing a passageway for filling the bag.

10. The bag of claim 9 wherein the keg has a keg aperture and an end wall to which the open neck is secured and the keg aperture is located centrally of the keg end wall.

ALCOHOL BEBVERAGE BAG CONSTRUCTION

ABSTRACT

A bag suitable for containing beer when placed in a keg comprises first and second rectangular panels having peripheral edges welded together to form a first seam. Each panels has an area larger than a cross-sectional area for the keg and the panels are sized relative to the keg cross-sectional area to permit the panels to be forced apart during bag filling so as to expand bag internal space to approximate the volume of the keg. The bag has an open neck member passing through an aperture of the first panel and welded thereto to form a second seam. The bag has fewer seams to be stressed during bag insertion and removal into the container. Further, the aperture in the first panel of the bag is offset from the center of the panel to reduce the likelihood of the first seam of the bag being bunched together and pulled at one time through the keg aperture during bag extraction. Consequently, less stress is placed on the second seam during bag extraction from the keg thereby enhancing the recycling life of the bag.



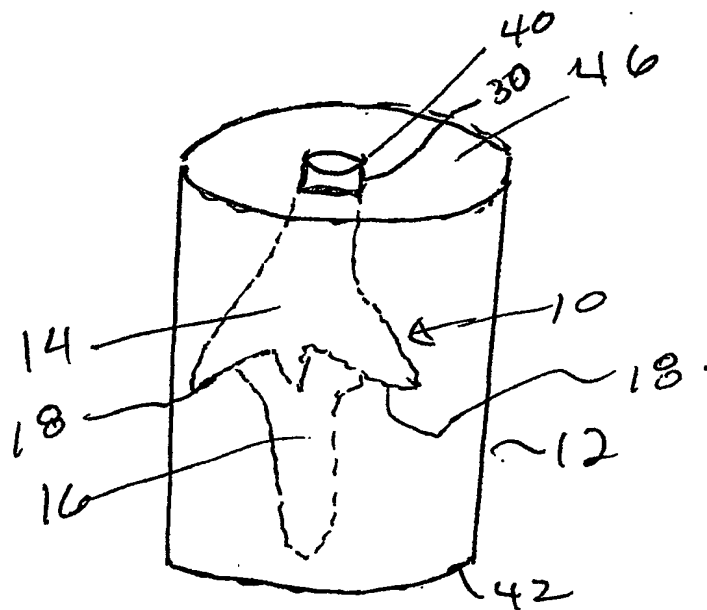


FIG. 2

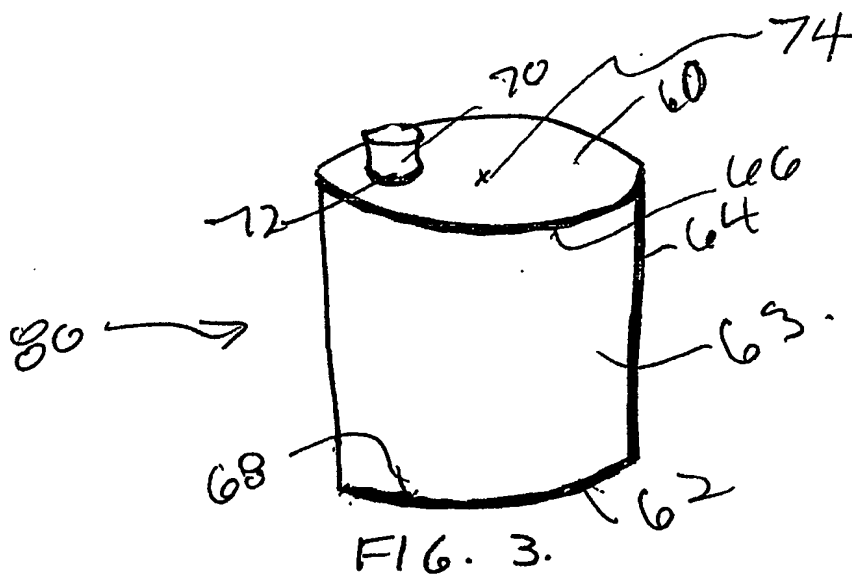


FIG. 3.

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